

KAPRAL, Kvetoslav, inz.

Will we have a unified classifier of parts in the machine industry? Pod org 18 no. 1:5-11 Ja '64.

1. Technicko-organizacni vyzkumny ustav strojirensky.

KAPRAL, Kvetoslav, inz.

"Technical preparation of production" by [Mgr.inz.] Franciszek
Haratym. Reviewed by Kvetoslav Kapral. Stroj vyr 11 no.1:55
'63.

KAPRAL, Kvetoslav, inz.

"Technology in machine design" by K. Skibar. Reviewed by
Kvetoslav Kapral. Pod org 17 no. 12: 572 D '63.

KAPRAL, Kvetoslav, inz.

Complex standardization of production process elements. Podn
org 18 no. 6:248-253 Je '64.

1. Research Institute of Mechanical Engineering and Economics,
Prague.

APPROVED FOR RELEASE

CZECHOSLOVAKIA

KAPRAL, Otakar, MVDr

Sobotka

Prague, Veterinarstvi, No 2 [Feb] 1967, p 86

"Rare case of volvulus in cattle."

KAPRALEK, F.

KAPRALEK, F.

Assimilation of hydrocarbons by microorganisms. Chekh. biol. 3
no.2:86-98 Apr 54.

1. Institut mikrobiologii biologicheskogo fakul'teta Karlova
universiteta, Praga.

(SOIL, bacteriology,

*microorganisms assimilating hydrocarbons)

(BACTERIA,

*hydrocarbons assimilating strains)

(FUNGI,

*hydrocarbons assimilating strains)

Czechoslovakia/Microbiology. General Microbiology F

Abs Jour : Ref Zhur-Biol., No 13, 1958, 57503

Author : Kapralek Frantisek

Inst : Not given

Title : The Mechanism of the Process of Submerged Cultivation of *Eremothecium ashbyii*

Orig Pub : Preslia, 1957, 29, No 2, 113-124

Abstract : *Eremothecium ashbyii* was grown on a glucosepeptone medium with an yeast extract (10 g of glucose, 10g of peptone, one gram of yeast extract in 1000 ml distilled water; the pH before sterilization was 6.7) by the submergion method. Four phases in the course of the cultivation of the fungus were distinguished by the author. The first phase which lasted about 24 hours was marked by the energetic growth of mycelium, great

Card 1/3

Charles Univ., Prague

KAPRALEK, J.

TECHNOLOGY

Periodical: ZDRAVOTNI TECHNIKA A VZDUCHOTECHNIKA. Vol. 1, no. 3, 1958.

KAPRALEK, J. Cooperation with the USSR in the field of gas filtration. p. 107.

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 3
March 1959 Unclass.

HIVES, L.; POTANCOK, M.; KAPRALIK, I.

Study of the physicochemical properties of clay layers of limno-quartzites from the Stara Kremniska area. Silikaty 8 no.3:201-209 '64.

1. Chair of Inorganic Technology, Slovak Higher School of Technology, Bratislava (for Hives and Potanock). 2. Institute of Inorganic Chemistry, Slovak Academy of Sciences, Bratislava (for Kapralik).

L 33136-66

ACC NR: AP6024183

SOURCE CODE: CZ/0034/65/000/009/0667/0669

AUTHOR: Kapralik, I.; Jurca, K.

ORG: Institute for Inorganic Chemistry, SAV, Bratislava (Ustav anorganickej chemie SAV)

TITLE: Adaptation of a microstructure x-ray analyzer "Mikrometa 2" to a non-sealed microfocus x-ray source

SOURCE: Hutnicke listy, no. 9, 1965, 667-669

TOPIC TAGS: crystal, laboratory instrument, x ray analyzer, x ray analysis, x ray crystallography/Mikrometa 2 x ray analyzer

ABSTRACT: The authors investigated the reduction of the exposure in photographs for X-ray structural analysis and were interested in the study of very small crystals. They believe that the required exposure time is mainly a function of the specific load of the anticathode, and only to a lesser degree of the total energy radiated by the focus. There is no commercial production of microfocus X-ray sources in Czechoslovakia; therefore the authors used a source of Russian manufacture, developed by B.K. Lomazichin, at the Institute of Biophysics of the Soviet Academy of Sciences. Description of the apparatus is given. Orig. art. has: 5 figures. [JPRS]

SUB CODE: 20 / SUBM DATE: none / SOV REF: 001 / OTH REF: 006
Cord 1/1 LS

KAPRALOV, A. A.

"The intravenous use of ichthyol for some diseases of the respiratory mechanism in horses,"
Nauch.-prakt. raboty voyenvet, sluzhby, Moscow, 1948, p. 79-81

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949).

KAPRALOV, A. A.

21/40 KAPRALOV, A. A. Intravennoye primeneniye ikhtiola pri nekotorykh zabolevaniyakh
tykhatellnogo apparata u loshadey. Trudy Kirgiz. s.-kh. in-ta im. Skryabina,
vyp. 6, 1949, s. 106-10

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949.

KAPRALOV, A.A.

Candidate of Veterinary Science A.A.KAPRALOV (Kirgiz Agricultural Institute)"Our Conception of the Treatment of Brucellosis." The author considers it possible to achieve some successes by treating brucellosis by the "leukocyte therapy" recommended by him.

SO:Veterinariya, No.6, June 1950, uncl

KAPRALOV, A.A.

"Depth of Water Penetration into Bowels and Its Influence on Intestine Contents .
by Tamponing the Equine Rectum". Kirghiz Inst.of Agric.ineni.I.I.Skryabin
U-5603;24 Feb 1954 (Veterinariya, Vol 27, no.8, 1950, pp 48-51)

Каприлов, А. А.

Determination of bile pigments in urine with barium chloride. A. A. Kapralov. Veterinariya 30, No. 12, 45 (1953). — For detection of bile pigments in animal urine a 5-10 ml. centrifuged sample is treated with 3-5 ml. 10% BaCl₂ solution, allowed to stand while the ppt. forms, and centrifuged 2-3 min. If the ppt. is yellow, the test is regarded as pos. The sensitivity approaches 1:100,000. The test is believed to be based on adsorption of bile pigments. G. M. Kosolapov.

Cand. Vet. Sci., Dotsent

COUNTRY : USSR R
CATEGORY : Diseases of Farm Animals. General Problems
ABS. JOUR. : RZhBiol., No.13, 1958, No. 59685
AUTHOR : Kapralov, A. A.
INST. : -
TITLE : Intravenous Ichthyol Therapy

ORIG. PUB. : Veterinariya, 1957³⁴, No 8, 62-63

ABSTRACT : For the treatment of pulmonary diseases in large agricultural animals, the author applied ichthyol (I), with a good result, which he administered intravenously as a 2% aqueous solution in a dose of 5 mg./kg. with the addition of 10 ml. of 20% solution of caffeine (C). The solution of I was prepared with distilled water, sterilized during 30 min., and slowly injected into the vein together with a solution of C.

Card:

1/1 *Trilichy Vet. Inst.*

R - 5

KAPRALOV, A.G.

[What every hospital attendant should know] Chto moshno znat' sanitarnu. 14. izd., perer. i dop. [Leningrad] Medgiz, 1953. 315 p.
(Nurses and nursing) (MLRA 7:8)

KAPRALOV, Aleksandr Gavrilovich; SELIVANOV, V.I., red.; LEBEDEVA, Z.V.,
tekhn. red.; BUGROVA, T.I., tekhn. red.

[What an orderly must know; a manual] Chto muzhno znat' sanitaru;
spravochnoe posobie. Izd.15, perer. i dop. Leningrad, Medgiz,
1962. 285 p. (MIRA 15:7)
(MEDICINE--HANDBOOKS, MANUALS, ETC.)

KIRILLOV, G.N., inzhener; MOSKALEV, P.D., mekhanik; PIMENOV, A.N.,
shofer; KONEV, B.F., inzhener, retsenzent; KAPRALOV, B.A., re-
daktor; MOISEL', B.I., tekhnicheskii redaktor.

[Servicing and regulating the feed system of carburetor motors]
Obsluzhivanie i regulirovka sistemy pitaniia karbiuratornykh
dvigatelei. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.
i sudostroit. lit-ry, 1954. 144 p. (MLRA 7:8)
(Automobiles--Engines)

KAPRALOV, Boris Alekseyevich; CHEKRYGIN, I.G., redaktor; **KOVALIKHINA, N.F.,**
tekhnicheskii redaktor; **KOGAN, F.L.,** tekhnicheskii redaktor

[Organization of carburetor shops in automobile repair garages]
Organizatsiia karbiurnornogo tsekha v avtomobil'nom khoziaistve.
Moskva, Avtotransizdat, Ministerstva avtomobil'nogo transporta i
shosseinykh dorog, 1954. 143 p. (MLRA 8:3)
(Carburetors) (Automobiles—Repairing)

KAPRALOV, B.

ALEKSEYEV, N., inzhener., ~~KAPRALOV, B.~~, inzhener., Shlippe, I., kandidat
tekhnicheskikh nauk.

Set of instruments used for checking fuel feed systems of carburetor
engines. Avt.transp. 35 no.4:18-21 Ap '57. (MLRA 10:5)
(Automobiles--Fuel consumption)

VINOGRADOV, V.V., tekhn.; IL'INA, Z.F., st. tekhn.; KAPRALOV, B.A., st. inzh.;
 PONIZOVKIN, A.N.; BRUSYANTSEV, N.V., kand. tekhn. nauk; KOVAL'CHUK,
 V.P., kand. tekhn. nauk; NOVIKOVA, A.I., inzh.; RUBETS, D.A., kand.
 tekhn. nauk; RYTCHENKO, V.I., ; SHURKINA, V.S., st. tekhn.;
 MAL'KOVA, N.V., tekhn. red.

[Concise automobile handbook] Kratkii avtomobil'nyi spravochnik.
 Moskva, Nauchno-tekhn. izd-vo avtotransportnoi lit-ry, 1958. 447 p.
 (MIRA 11:10)

1. Moscow. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy
 institut avtomobil'nogo transporta. 2. Nauchno-issledovatel'skiy
 institut avtomobil'nogo transporta (for all except Mal'kova). 3. Nachal'nik
 laboratorii gruzovykh avtomobiley Nauchno-issledovatel'skogo instituta
 avtomobil'nogo transporta (for Ponizovkin). 4. Nachal'nik laboratorii
 elektrooborudovaniya Nauchno-issledovatel'skogo instituta avtomobil'nogo
 transporta (for Rytchenko).

(Automobiles--Handbooks, manuals, etc.)

ZAYCHENKO, Ye.N.; KAPRALOV, B.I.

Comparison of fuel efficiency of motor-vehicle engines by testing
results. *Avt.prom.* 29 no.9:9-10 S '63. (MIRA 16:9)

1. Gosudarstvennyy soyuznyy ordena Trudovogo Krasnogo Znameni
nauchno-issledovatel'skiy avtomobil'nyy i avtomotornyiy institut.
(Motor vehicles—Engines)

KAPRALOV, B.P., inzh.; KUROCHKO, R.S., inzh.

Electric arc hard facing of valves working in corrosive media.
Svar. proizv. no.3:38-40 Mr '63. (MIRA 16:3)
(Hard facing) (Corrosion and anticorrosives)

KAPRALOV, B. V.

Vypolnen piatiletnii plan rekonstruktsii radiouzlov Leningradskoi oblasti. [The five-year plan for reconstruction of radio broadcasting centers in the Leningrad Province is fulfilled]. (Vestnik sviazi. Elektrosviaz', 1948, no. 5, p. 3 of cover).
DLC: TK4.V45

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress Reference Department, Washington, 1952, Unclassified.

PA 7/49T56

KAPRALOV, B.

USSR/Radio Equipment
Radio Stations

Aug 48

"Radiofication of Leningrad Oblast," B. Kapralov,
Engr, Dir, Leningrad Oblast Radio Broadcasting Net,
2 pp

"Vest Svyazi - Pochta" No 8 (101)

Describes war damage reconstruction and extension
of radio in the Oblast. Gives details of achieve-
ments in various rayons. Includes photograph of
radio station at Vyborg.

7/49T56

KAPRALOV, B.

235T49

USSR/Electronics - FM Broadcasting

Oct 52

"On the Road to Complete Radiofication of Leningrad Oblast," B. Kapralov, Chief, Leningrad DRTS (Directorate of the Wired Radio Network)

"Radio" No 10, pp 5-7

Exptl operation of ultrashort-wave FM receivers at a number of wired radio centers has shown that these receivers improve the quality of reception considerably within a radius of 40-50 km from the transmitter. From 1949 to 1952, the DRTS, jointly with the Leningrad Branch of VNORIE, held 5 conferences on radiofication problems.

235T49

KAPRALOV, B.

Telecommunication

To improve the efficiency of communication workers. Sov. sviaz. 3, No. 3, 1953.

Monthly List of Russian Accessions. Library of Congress. June 1953. Uncl.

KAPRALOV, B., nachal'nik.

Our experience in combining occupations. Radio no.6:14-15 Je '53.

(MLR 6:6)

1. Leningradskaya DRTS

(Radio--Stations)

Common space for and maintenance of wired radio stations with telephone or telegraph stations or other communications centers increases labor productivity and makes for better utilization of space, equipment, and measuring instruments. Describes developments in Leningrad Oblast' from 1951 to present, in which time 40 wired radio centers were combined with communications centers.

261T64

KAPRALOV, D.A.

Inclined cutting bars for the "Donbass-1" and LGD-2 combines. Bez.-
truda v prom. 6 no.1:34 Ja '62. (MIRA 15:1)
(Coal mining machinery)

KAPRALOV, G.E.

Well-grounded claims of miners. Bezop.truda v prom. 4 no.4:32 Ap '60.
(MIRA 13:9)

1. Glavnyy mekhanik Kedrovskogo razreza Kuzbass.
(Clothing, Protective)

SOV/112-58-2-1855

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 2, p 9 (USSR)

AUTHOR: Kapralov, I. I.

TITLE: Problem of Gas-Breakdown Mechanism in the Presence of Electron Emission (K voprosu o mekhanizme proboya gaza pri nalichii elektronnoy emissii)

PERIODICAL: Izv. Tomskogo politekhn. in-ta, 1956, Vol 91, pp 165-171

ABSTRACT: A construction of an experimental three-chamber thyatron is described, intended for studying the pre-breakdown state of a gas in the presence of thermionic emission. Electrical circuit diagram for the thyatron has been developed. Similarity of effects of igniting and pre-breakdown currents on the thyatron ignition voltage has been experimentally discovered with various gas pressures in the chambers. It has been found that gas breakdown occurs at a definite electron and gas-particle concentration in the chamber. Bibliography: 3 items. Zapadno-Sibirskiy filial AN SSSR (Western-Siberian Branch, AS USSR), Novosibirsk.

A. A. V.

Card 1/1

SOV/112-57-9-19452D

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 9, p 218 (USSR)

AUTHOR: Kapralov, I. I.

TITLE: Investigation of Prefiring Processes in a Thyatron With a Control Grid
and a Filament (Issledovaniye predpuskovykh protsessov tiratrona s
upravlyayushchimi setkoy i nit'yu)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of
Candidate of Technical Sciences, presented to Tomskiy politekhn. in-t
(Tomsk Polytechnic Institute), Novosibirsk, 1956.

ASSOCIATION: Tomskiy politekhn. in-t (Tomsk Polytechnic Institute)

Card 1/1

9,4120 (1003,1105,1140)

26.2311

21035

S/058/61/000/005/042/050
A001/A101

AUTHORS: Kapralov, I.I., Markov, Yu.G.

TITLE: On the part of auxiliary discharge in the process of arc ignition

PERIODICAL: Referativnyy zhurnal. Fizika, no 5, 1961, 338, abstract 5Zh124
("Izv. Sibirsk. otd. AN SSSR", 1960, no 6, 116 - 118)

TEXT: A Mo-filament was placed in the experimental tube of the shielded thyatron type on the cathode axis. An auxiliary discharge was maintained between the filament and the cathode. Experiments were conducted in Hg at a pressure of 8μ Hg. The effects of auxiliary discharge current (I_{aux}) were studied on prestarting anode current ($I_{a pr}$), anode current (I_a) and anode voltage (U_a) at which arc-over to anode took place. The experiments have shown: 1) $I_{a pr}$ is a power function of anode voltage, and the constant coefficient in the power exponent increases from 1.8 to 2.5 when I_{aux} grows from 206 to 570μ a; 2) when I_{aux} decreases, I_a decreases too, but U_a grows. The authors presume that at the starting instant, when $I_{a pr}$ attains a sufficient magnitude, anode field

card 1/2

21035

On the part of auxiliary discharge ...

S/058/61/000/005/042/050
A001/A101

penetrates into the plasma of auxiliary discharge. This gives rise to its decay, growth of ionization throughout the entire volume, and arc-over to anode. The authors are of the opinion that their conclusions should be additionally checked by experiments. V

I. Lukatskaya

[Abstracter's note: Complete translation.]

Card 2/2

KAPRALOV, I. I., MALIKOV, N. P.

Possibility for controlling a discharge by negative voltage pulses. Izv. Sib. otd. AN SSSR no. 7:123-126 '60.

(MIRA 13:8)

1. Institut radiofiziki i elektroniki Sibirskogo otdeleniya AN SSSR.

(Electric discharges)

25278

9.6/10
9.4/20

S/200/61/000/007/002/006
T238/D302

AUTHORS: Kapralov, I.I., Fyedotov, M.A., Markov, Yu.G.

TITLE: A high frequency gas discharge transducer

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Sibirskoye otdeleniye,
no. 7, 1961, 36 - 40

TEXT: The present article gives the results of experimental study of electrical characteristics of the transducer, with the aim of ascertaining the basic parameters which determine the sensitivity of the new transducer and the mechanism of its operation. Two samples of the high frequency discharge tube were made, diagrammatically shown in Fig. 1. The electrodes were made of molybdenum wire 0.6 mm diameter, the envelope of a glass cylinder having a 5 mm diameter. After careful evacuation the tubes were filled with argon at 6 mm Hg. For testing the tubes as capacitance transducers the cct diagram of Fig. 1 was used consisting of cathode followers connected to the tube electrodes. The output signal proportional to the potential

Card 1/6

25278

S/200/61/000/007/002/006
D238/D302

A high frequency gas ...

difference between the tube electrodes was measured with an oscilloscope 3HO.1 (EN0-1) and a visual meter. The linearity range of the arrangement extended beyond 100 V, pass band was 0-100 kc/s, voltage amplification 0.8. The H.F. generator had two fixed frequencies (167 and 520 Kc/s), the output voltage U_{HF} could be regulated between 100-500 V (RMS) and the power was about 3 watts. The HF discharge was being produced by two ring electrodes, fed from a symmetrical, with respect to ground, power supply. The electrodes were made from a bronze sheet 5 mm wide and glued to the surface of the tube. The d.c. voltage between the electrodes is proportional to ΔC (Fig. 1) and exists for $\Delta C \neq 0$. The sensitivity is a decreasing function of C and with good approximation $\mu \approx \frac{1}{C}$. For C = 0 the sensitivity depends solely on parasitic capacitances. The influence of amplitude U_{HF} and of frequency F on sensitivity μ is also shown. The optimum pressure of gas was found experimentally to be 9 mm Hg and the dependence of μ on gas pressure is given gra-

Card 2/6

25270

S/200/61/000/007/002/006
D238/D302

A high frequency gas ...

phically. When driving HF electrode is not rigidly connected to the envelope of the tube the instrument becomes a displacement transducer, as shown in Fig. 5 (two variants of such transducers). In a) the d.c. voltage is obtained due to axial displacement of the electrode with respect to the tube. In b) the effect is due to the radial movement of the tube with respect to the electrode ring. It is stated that the d.c. voltage in the above types of tubes is due to the destruction of the homogeneous distribution of charged particles in the gas, e.g. in the instrument of Fig. 1 it is produced by unequal conditions for the transmission of HF current in the electrode circuits having different capacitances. The concentration of charged electrodes becomes smaller so that the corresponding potentials of electrodes become different. It is shown by experiment that the concentration of electrons in plasma touching the electrode is proportional to the amplitude of the HF current. Comparison of data shows that the electron temperature is a linear function of amplitude, except for small amplitudes at $f = 167$ Kc/s. The choice of proper values of pressure is said to be of importance in prac-

Card 3/6

A high frequency gas ...

25270

S/200/61/000/007/002/006
D238/D302

tice for every type of transducer. The magnitude of derivative $\frac{\partial n_0}{\partial c}$ e.g. the sensitivity, depends on positioning the electrodes with respect to the external field, since the experiments have shown that max. excitation of plasma occurs when the electrodes are perpendicular to the equipotential lines. It is stated in conclusion that the transducer sensitivity can be increased to a few tens of volts per micromicro farad, that there is an optimum, with respect to sensitivity, pressure (8-9 mm Hg for argon), that ageing of tubes results in better sensitivity and stability; for 8 hr. ageing the hourly instability was reduced to 5-8 %. It is stated further that the given physical picture of d.c. voltage generation has been well confirmed by the experiment and finally that the gas discharge transducers could be used in various electron devices for measuring small capacities, mechanical displacements and dimensions, gas pressure, humidity, velocity etc. There are 5 figures and 1 non-Soviet-bloc reference.

ASSOCIATION: Institut radiofiziki i elektroniki sibirskogo otdeleniya AN SSSR, Novosibirsk (Radiophysics and Electronics Institute, Siberian Branch AS USSR, Novosibirsk)

Card 4/6

KAPRALOV, I.I.; FEDOTOV, M.A.; MARKOV, Yu.G.

High-frequency gas-discharge transducer. Izv. Sib. otd. AN
SSSR no.7:36-40 '61. (MIRA 14:8)

1. Institut radiofiziki i elektroniki Sibirskogo otdeleniya
AN SSSR, Novosibirsk.
(Transducers)

37356
S/194/62/000/003/033/066
D256/D301

9.4120

AUTHORS: Kapralov, I. I., Fedotov, M. A. and Markov, Yu. G.

TITLE: A high-frequency gas-discharge device

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,
no. 3, 1962, abstract 3-3-79ye (Izv. Sibirsk. otd.
AN SSSR, 1961, no. 7, 36-40)

TEXT: The device comprises a gas-discharge diode made of a glass tube 5 mm in diameter and a length of 54 mm, provided with 0.6 mm diameter molybdenum rod electrodes sealed into the ends of the tube, the distance between the electrodes being 26 mm. A high-frequency electrode, e.g. a ring made of foil, was placed or glued onto the outside of the tube and connected to a 200 - 500 V, 167 or 520 kc/s supply. The end-electrodes were connected to the grids of a double triode working in a bridge circuit. The electrodes were connected to the "earth" of the system by small capacitors ($0 \leq 10$ pF). At a difference of C and ΔC a d.c. voltage U_B was registered X
—at the output of the circuit depending on the values of C, ΔC , the

Card 1/2

A high-frequency ...

S/194/62/000/003/033/066
D256/D301

frequency and the position of the H.F. electrode. It was shown that the occurrence of the d.c. voltage at the output of the diode resulted from a nonuniform charge distribution in the volume of the diode. The sensitivity of the system was: up to 20 V/pF in capacitance or 5 V/mm in mechanical movement. The error of the experimental instruments exceeded 5%. The possibility is considered of applying the diode as an electric transducer of nonelectric quantities. 1 reference. [Abstracter's note: Complete translation.]

Card 2/2

KAPRALOV, I.I.

Arc excitation by a negative voltage pulse. Izv. SO AN SSSR no.10:
112-115 '63. (MIRA 17:11)

1. Institut avtomatiki i elektrometrii Sibirskogo otdeleniya AN
SSSR, Novosibirsk.

KAPRALOV, I.K.

Use of unithiol and the calcium Na salt of ethylenedinitrilo-
tetraacetic acid in compound treatment of porphyria. Vest.
derm. i ven. 38 no.9:21-25 S '64. (MIRA 18:4)

1. Sverdlovskiy nauchno-issledovatel'skiy kozhno-venereologicheskii
institut (dir. - kand.med.nauk A.V.Bakhireva) Ministerstva
zdravookhraneniya RSFSR.

S/564/57/000/000/019/029
D258/D307

AUTHORS: Kapralov, K. V., Koritskiy, Yu. V., and Sheftal', N. N.

TITLE: First attempts at growing large crystals of mica

SOURCE: Rost kristallov; doklady na Pervom soveshchanii po rostu kristallov, 1956 g. Moscow, Izd-vo AN SSSR, 1957, 273-276

TEXT: The present work was carried out in 1947-1949 in Laboratoriya slyudyanoy izolyatsii Bessoyuznogo elektrotekhnicheskogo instituta (Mica Insulation Laboratory of the All-Union Electrotechnical Institute), (Kapralov and Koritskiy), with consultations from Sheftal' of Institut kristallografii AN SSSR (Crystallography Institute of the AS USSR). In 1947 preliminary fusions with unspecialized apparatus showed that graphite was the best crucible material (in CO at 1400°C). The

Card 1/2

First attempts...

S/564/57/000/000/019/029
D258/D307

period 1948-1949 was spent in construction of special furnaces. Small mica crystals containing 16 - 50% of glass were obtained, frequently in two generations (resulting in crossed crystals); fluorine losses were considerable. A 2-chamber furnace with closely controlled temperature distribution was completed in 1949. Charge compositions of ~ 40% quartz, 16 - 29% KF, 18 - 32% MgO, and 11.5 - 22% Al_2O_3 were tried, as well as 71% natural phlogopite with 29% KF, and a mixture corresponding to the calculated formula of phlogopite. Positive results (crystals up to 4 x 2.5 cm) were obtained by placing the crucible in a KF bath. The optimum conditions are: charge composition 41.0 SiO_2 , 25.0 MgO, 14.0 Al_2O_3 , and 20.0% KF; heating to 1400 - 1500°C over 2 - 3 hrs, rapid cooling to 1300 - 1295°C, slow cooling at 3 - 5°/hr to 1200 - 1220°C. Further work is in progress at the Crystallography Institute. There are 3 figures.

Card 2/2

GORSHKOV, V.; RUBAN, T.; MONAKHOV, A.; KALIKINSKIY, V.; KAPRALOV, M.

New machines in operation. Den. i kred. 21 no.3:51-57 Mr '63.
(MIRA 16:3)

1. Glavnyy bukhgalter Belgorodskoy oblastnoy kontory Gosbanka (for Gorshkov). 2. Starshiy inspektor glavnoy bukhgalterii Belgorodskoy oblastnoy kontory Gosbanka (for Ruban). 3. Starshiy ekonomist glavnoy bukhgalterii Kalininskoy oblastnoy kontory Gosbanka (for Monakhov). 4. Glavnyy bukhgalter upravleniya filialami Gosbanka TSelinogradskoy oblasti (for Kalikinskiy). 5. Starshiy mekhanik Tul'skoy oblastnoy kontory Gosbanka (for Kapralov).

(Banks and banking--Accounting) (Machine accounting)

KAPRALOV, Mikhail Kaprovich; GUROV, S., redaktor; LIL'YE, A., tekhnicheskii
redaktor

[Competition for higher work and equipment productivity; experience
in directing a production brigade] Sorevnovanie za vysokuiu pro-
izvoditel'nost' truda i oborudovaniia; iz opyta rukovodstva proiz-
vodstvennoi brigadoi. [Moskva] Moskovskii rabochii, 1955. 39 p.
(MIRA 9:2)

1. Pomoshchnik мастера Moninskogo Moninskogo kamvol'nogo kombinata
(for Kapralov) (Efficiency, Industrial)

KAPRALOV, M.

~~SECRET~~
In an automatic loom shop. Sots.trud.no.11:76-78 N '56.

(Textile industry--Production standards)

(MIRA 10:1)

KAPRALOV, MIKHAIL KARPOVICH

LIPATENKOV, Ivan Vasil'yevich; ~~KAPRALOV, Mikhail Karpovich~~; BITUNOV, Yevgeniy Ivanovich; VAKUROV, Konstantin Viktorovich; KUZOVSKIN, Konstantin Sergeyevich; PAVLOV, Leonid Vasil'yevich; KLOCHKOV, Ivan Nikitich; ZHITS, Margoliya Isayevna; KHROMOV, Vasil'y Vasil'yevich; LIPSHITS, N.V., redaktor; KOFILVICH, Ye.I., redaktor; DMITRIYEVA, N.I., tekhnicheskii redaktor

[Assembling and adjusting machinery of looms with picker sticks;
work practices of foremen and assistants in the Monin worsted mills]
Ustanovka i naladka mekhanizmov tkatskikh stankov s verkhnim boem;
obobshchennyi opyt raboty masterov i pomoshchnikov mastera Moninskogo
kanvol'nogo kombinata. Pod red. N.V.Lipshitsa. Moskva, Gos.nauchno-
tekhn.izd-vo M-va legkoi promyshl.SSSR, 1957. 109 p. (MLRA 10:9)
(Looms)

BITUNOV, Ye.I.; KAPRALOV, M.K.; MALEKHONOV, D.P.

Specialized gaitings used in weaving. Tekst. prom. 18 no.9:
7-10 S '58. (MIRA 11:10)

1. Zaveduyushchiy tkatskim proizvodstvom Moninskogo kamvol'nogo kombinata (for Bitunov). 2. Nachal'nik tsekha avtomaticheskikh tkatskikh stankov (for Kapralov). 3. Starshiy inzhener po normirovaniyu tkatskogo proizvodstva (for Malekhonov).
(Weaving)

VOLCHANETSKIY, I.B., prof.; LISETSKIY, A.S.; KAPRALOV, N.I.

Birds in forests of the Northern Donets basin. Uch.zap. KHGU
52:33-45 '54. (MIRA 11:11)

1. Kafedra zoologii pozvonochnykh Khar'kovskogo gosudarstvennogo
universiteta.
(Northern Donets Valley--Birds) (Forest fauna)

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M-5

Abs Jour : Ref Zhur - Biol., No 7, 1958, 29905

Author : Kapralov, N.P.

Inst : The All-Union Scientific Research Institute for Fiber Crops.

Title : Several Agrotechnical Problems in Jute Seed Sowing.

Orig Pub : Tr. Vses. n.-i. in-t lub. kul'tur, 1957, vyp. 22, 125-131.

Abstract : No abstract.

Card 1/1

29

29852

S/044/61/000/007/023/055
C111/C222

13.2520

AUTHOR: Kapralov, N.S.

TITLE: On gyroscopic destabilization

PERIODICAL: Referativnyy zhurnal. Matematika, no. 7, 1961, 41,
abstract 7 B 177. ("Uch. zap. Ryazansk. gos. ped. in-t",
1960, 24, 33-35)

TEXT: The author compares the systems

$$y'' + P(t)y = 0 \quad \text{and} \quad y'' + Sy' + P(t)y = 0,$$

where $P(t)$ is a symmetric matrix and S is a skew-symmetric matrix. It is well-known that if $P(t)$ is constant then from the boundedness of the first system there follows the boundedness of the solutions of the second system. In the case of a periodic $P(t)$ this is incorrect; that is shown by the author by an example in which

$$P(t) = \begin{pmatrix} \varphi & 0 \\ 0 & \varphi \end{pmatrix}, \quad \varphi = \lambda - 2h^2 \cos 2t, \quad S = \begin{pmatrix} 0 & 2 \\ -2 & 0 \end{pmatrix}$$

[Abstracter's note: Complete translation.]
Card 1/1

X

32492

S/044/61/000/011/011/049
C111/C444

16.3400

AUTHOR: Kapralov, N. S.

TITLE: On a transformation of A. M. Lyapunov

PERIODICAL: Referativnyy zhurnal, Matematika, no. 11, 1961, 24,
abstract 11B114. (Uch. zap. Ryazansk. gos. ped. in-t,
1960, 24, 37 - 42)

TEXT: Considered is the vector equation

$$d^2x/ds^2 + P(s)x = 0, \quad (1)$$

where $P(s) = P(s + 2\pi) = P(s)^T$ is an $n \times n$ real symmetrical matrix function. A. M. Lyapunov (Complete works, 1956, P. 332 - 391, 401 - 472) has thoroughly investigated the scalar equation (1) ($n = 1$) with a function $P(s)$ of a constant sign, and he has proposed a certain transformation which in a number of cases permits to reduce an equation (1), $n = 1$, in which $P(s)$ is of changing sign, to an analogous equation with a function of constant sign. The author applies this transformation on the vector equation (1), and then on the transformed equation with a matrix function of constant sign he applies certain results of M. G. Kreyn (RZh Mat, 1956, 2189, 5648). There are three theorems obtained, two of which are contained in the other
Card 1/2

S/124/62/000/001/003/046
D237/D304

13,9520
AUTHOR:

Kapralov, N. S.

TITLE:

Gyroscopic de-stabilization

PERIODICAL:

Referativnyy zhurnal, Mekhanika, no. 1, 1962,
17, abstract 1A138 (Uch. zap. Ryazansk. gos. ped.
in-t, 1960, 24, 33-35)

TEXT:

A system of differential equations

$$\frac{d^2 y}{dt^2} + P(t) y = 0$$

is considered, where $P(t)$ is the symmetrical periodic matrix
function and y is the column matrix, all solutions of which are
bounded, together with the system

Card 1/2

✓
B

Gyroscopic de-stabilization

S/124/62/000/001/003/046
D237/D304

$$\frac{d^2 y}{dt^2} + S \frac{dy}{dt} + P(t) y = 0$$

✓
B

where S is the skew-symmetric constant matrix. It was shown on a particular example that in some cases the matrix can be chosen in such a manner that solutions become unbounded on the addition of a gyroscopic term to the system. [Abstracter's note: Complete translation.]

Card 1/2

L 20801-85 EWT(1) IJP(c)

MISSION NR: AR4046874

S/0124/64/000/009/42

SOURCE: Ref. zh. Mekhanika, Abs. 9A99

AUTHOR: Kapralov, N. S.

TITLE: Use of contracting functions in analyzing the stability of motion

CITED SOURCE: Uch. zap. Ryazansk. gos. ped. in-t., v. 35, 1965, 70-75

TOPIC TAGS: Lyapunov function, motion stability analysis, motion stability, contracting functions, motion stability, Lyapunov function, expanding functions

TRANSLATION: The author considers an equation system in the form

$$\frac{dx_i}{dt} = f_i(t, x_1, \dots, x_n) \quad (i=1, 2, \dots, n)$$

where real functions $f_i(t, x)$ are continuous in the entire space E_{n+1} of variables t, x_1, \dots, x_n and have continuous partial derivatives over all x ; and $f_i(t, 0) = 0$. He introduces concepts of locally contracting, contracting, monotonic contracting, expanding and absolutely expanding Lyapunov functions. He states that necessary and sufficient conditions of asymptotic stability are:

Card 1/2

L 20801-65

ACCESSION NR: AR4046874

tegral stability in a null solution to the analyzed system can be established with the aid of these introduced contracting functions. It is shown that a new phrasing of the cited theorems can serve to evolve theorems on conditions of monotonous asymptotic stability and monotonous integral stability. It is also shown that theorems of absolute and conditions of stability of a null solution to the analyzed system. It is noted that the latter theorems intersect, in a certain sense, with results available in the literature. Simple conditions are given which insure the contractibility of Lyapunov's functions and are presented as an example the use of contracting functions in the stability of a null solution. V. I. Isokhov

SUB CODE: ME, MA

ENCL: 00

Card 2/2

L 20805-65 EWT(d)/EWA(m)-2 IJP(c)

ACCESSION NR: AR4046875

S/0124/64/000/009/AC

SOURCE: Ref. zh. Mekhanika, Abs. 9A100

AUTHOR: Kapralov, N. S.

TITLE: Integral stability 16

CITED SOURCE: Uch. zap. Ryazansk. gos. ped. in-t, v. 35, 1963, 76-79

TOPIC TAGS: nonautonomous system, compressive function, trivial solution
stability, integral stability

TRANSLATION: Proof is submitted for two theorems on the integral stability of a trivial solution to a non-autonomous system of arbitrary order with continuous right-hand terms. The adequate conditions of integral stability are stated. There are two theorems on the existence of the solution.

sent in another report (see Abstract 9A99). L. M. Markovskii

SUB CODE: ME, MA

ENCL: 00

Card 1/1

L 31296-65 SWT(d) Pf-4 IJP(c)

SOURCE: Ref. zh. Matematika, Abs. 11B216

AUTHORS: Kapralov, N. S., Makarov, I. P.; Potlov, V. V.

TITLE: Concerning the use of a differential equation of the next

CITED SOURCE: Uch. zap. Ryazansk. gos. ped. in-t, v. 35, 1963, 54-7.

TOPIC TAGS: differential equation, approximate solution, integration, differential equation:

TRANSLATION: The following equation is considered:

$$y'(x) = \alpha(\bar{x}) y[x + \tau \operatorname{sgn} m(x - x_0)] + \beta(x). \quad (1)$$

The solution is sought on the segment $[x_{10}, x_{20}]$ and it is assumed that x_0 is an interior point of this segment. The solution of (1) is found by the method of steps, wherein to find the solution on $[x_{10}, x_0]$ the initial condition is given at x_{10} .

Card 1/2

L 31296-65

ACCESSION NR: AR5004795

solution on $[x_1, x_2]$ the initial function is specified on $[x_1, x_2]$
equation is integrated on the left. The possibilities are investigated
the initial function is specified on $[x_1, x_2]$ by and the initial function
is specified on $[x_1, x_2]$ by the initial function and the parameters of the
operator. The operator is defined by G. Kamenov.

1965

1965

Word

PONOMAREV, V.D.; MALYSHEV, M.F.; YASHUNIN, P.Ya.; KAPRALOV, P.V.

Leaching of bauxites by high-modulus alkali solutions. Izv.AN
Kazakh.SSR.Ser.met., obog.i ogneup. no.2:27-32 '61. (MIRA 14:8)
(Leaching) (Bauxite)

KAPRALOV, R.S.; LISOVSKAYA, G.M., rukovoditel' raboty

Significance of intrauterine fetal electrocardiography in the early
diagnosis of multiple pregnancy. Akush. i gin. no.2:45-49 '65.
(MIRA 18:10)

1. Sverdlovskiy nauchno-issledovatel'skiy institut okhrany
materinstva i mladenchestva (direktor -- kard.med.nauk R.A.
Malysheva).

KAPRALOV, S.A., inzhener-podpolkovnik

Creative thought is in full swing. Vest. protivovozd. obor.
no.7:44-45 J1 '61. (MIR' 14:8)

(Airplanes, Military--Maintenance and repair)

KAPRALOV, S.A., gvardii inzhener-podpolkovnik

Our objections. Vest.Vozd.Fl. no.8:57-58 Ag '61. (MIRA 14:8)
(Russia—Air force—Officers)

KAPRALOV, Semen Aleksandrovich; YARTSEV, N., red.

[Continuous production planning] Nepreryvnoe planiro-
vanie proizvodstva. Moskva, Mosk. rabochii, 1964. 102 p.
(MIRA 17:12)

KAPRALOV, V., (Kiyev)

Band switch of a transmitter. Radio no.4:22 Ap '56. (MLRA 9:7)
(Radio--Apparatus and supplies)

RADION, G. (UC2AR); KAPRALOV, V. (UA1DF)

Concerning the work with DX. Radio no.9:14 S '61.-

(MIRA 14:10)

(Amateur radio stations)

KAPRALOV, Viktor Aleksandrevich; GRIGOR'YEV, T.Ye., redaktor; LARIONOV,
G.Ye., tekhnichaskiy redaktor

[Manual for brick lining of steam boilers] Pamiatka obmurovshchika
parovykh kotlov. Pod red. T.E.Grigor'eva. Izd. 2-oe, perer. Moskva,
Gos. energ. izd-vo, 1956. 93 p. (MLRA 9:10)
(Bricklaying) (Boilers)

VINNITSKIY, David Yakovlevich; GINZBURG-SHIK, Lev Davidovich; ZAYDEL', Viktor Arnol'dovich, kand. tekhn. nauk; ZAKHARASHEVICH, Anatoliy Aleksandrovich; KAPRALOV, Viktor Aleksandrovich; SOLOV'YEV, Vladimir Borisovich; CHULKOV, Sergey Pavlovich; YAKOBSON, Sergey Sergeyevich; KORIKOVSKIY, I.K., red.; ANTIKAYN, P.A., red.; VORONIN, K.P., tekhn. red.

[Handbook for the installation of heat engines and related equipment]
Spravochnik po montazhi toplomekhanicheskogo oborudovaniia. Izd. 2.,
perer. Moskva, Gos. energ. izd-vo, 1960. 560 p. (MIRA 14:8)
(Heat engines)

KAPRALOV, V.A., inzh.; LACHINOV, N.V., inzh.; BRONSHTEYN, I.I., red.;
BORUNOV, N.I., tekhn. red.

[Guide for the firebrick layer of steam boilers in electric
power plants] Pamiatka obmurovshchika parovykh kotlov elektro-
stantsii. Moskva, Gosenergoizdat, 1962. 79 p. (MIRA 15:7)
(Boilers) (Bricklayers)

KAPRALOV, V.P.

Observations of lunar occultations of stars at the Engel'gardt
Astronomical Observatory in 1957. Astron. tsir. no.191:25 My '58.
(MIRA 11:9)

1. Astronomicheskaya observatoriya im. V.P. Engel'gardta pri
Kazanskom gosudarstvennom universitete.
(Occultations)

CHUDOVICHEVA, N.A.; RABINSKIY, P.M.; KAPRALOV, V.P.

Measurements of the latitude of the Engel'gardt Astronomical
Observatory in 1957-1958, Astron. tsir. no.199:14-15 Ja '59.
(MIRA 13:2)

1.Astronomicheskaya observatoriya im. V.P. Engel'gardta.
(Astronomy, Spherical and practical)

KAPRALOV, V.P.

Observation of lunar occultations of stars at the Engel'gardt
Astronomical Observatory in 1958. Astron. tsir. no.201:22-23
Ap '59. (MIRA 13:2)

1.Astronomicheskaya observatoriya im. Engel'gardta.
(Occultations)

KAPRALOV, V.P.

26

PHASE I BOOK EXPLOITATION

867/5742

Akademiya nauk SSSR. Mezhdunarodnyy komitet po provedeniyu Mezhdunarodnogo geofizicheskogo goda. VIII razdel programmy IGG: Shiroty i dolgoty.

Predvaritel'nyye rezul'taty issledovaniy kolebaniy shirot i dvizheniya polusov zemli; sbornik statey (Preliminary Data of Latitude Variations and Migrations of the Earth's Poles; Collected Articles. No. 1) Moscow, Izd-vo AN SSSR, 1960. 97 p. Errata slip inserted. 1,000 copies printed.

PURPOSE: This collection of articles is intended for astronomers, geophysicists, and other scientists concerned with the problem of latitude variations and the migration of the Earth's poles.

COVERAGE: Part I of the collection contains preliminary results of latitude observations from 1957.5 through 1959.0 made at IGI stations in the USSR network, including new stations in Siberia. Part II consists of articles describing new instruments, observational programs and methods, and procedures of processing the latitude observational data. With the larger number of stations and the use of new instruments it is anticipated that the final results will provide a more comprehensive study of anomalies and instrumental

Card 1/5

Preliminary Data of Latitude Variations (Cont.)

SCI/5742

errors in latitude observations than has been possible previously. No personalities are mentioned. English abstracts and references follow each article.

TABLE OF CONTENTS:

Preface

5

PART ONE

Romanskaya, S. V., L. D. Kostina, and N. R. Andreyenko. Latitude Observations at the Main Astronomical Observatory of the Academy of Sciences USSR (Freyberg-Kondrat'yev Zenith-Telescope)

7

Yevlushenko, Ye. I., I. P. Ogorechnik, and O. V. Chuprunova. Observations of Talcott Pairs at the Poltava Gravitational Observatory of the Ukrainian Academy of Sciences (Zeiss Zenith-Telescope)

9

Popov, H. A. Observations of Bright Zenith Stars at the Poltava Gravitational Observatory of the Ukrainian Academy of Sciences (Zeiss Zenith-Telescope)

13

Card 2/5

Preliminary Data of Latitude Variations (Cont.)

507/5742

Ischenko, H. I., Ye. P. Fedorov, and A. P. Tsapova. Observations of Helix Pairs at the Poltava Gravitational Observatory of the Ukrainian Academy of Sciences (Bamberg Zenith-Telescope)	17
Gerasimova, Ye. I. Observations of Bright Zenith Stars at the Poltava Gravitational Observatory of the Ukrainian Academy of Sciences (Bamberg Zenith-Telescope)	20
Kopelov, V. P., P. H. Rabinov, and N. A. Chudovichen. Latitude Observations at the Astronomical Observatory imeni Engel'gardt (ZTL-180 Zenith-Telescope)	25
Kravtsov, D. I. Latitude Observations at the Kitab International Latitude Station imeni Ulug-bek (Bamberg Zenith-Telescope)	29
Mamurova, K. S. Latitude Observations at the Irkutsk State University Astronomical Observatory imeni A. A. Zhdanov (ZTL-180 Zenith-Telescope)	31

Card 3/5

KAPRALOV, V.P.

Observations of lunar occultations of stars at the Engel'gardt
Astronomical Observatory in 1959. Astron.tsir. no.209:41 Mr '60.
(MIRA 13:9)

1. Astronomicheskaya observatoriya im. Engel'gardta, Kazan'.
(Occultations)

CHUDOVICHEVA, N.A.; KAPRALOV, V.P.; RABINSKIY, P.M.; URASINA, I.A.

Latitude variations of the Engel'gardt Astronomical Observatory in
1959. Astron.tsir. no.210:14 Ap '60. (MIRA 13:9)

1. Astronomicheskaya observatoriya im.Engel'gardta.
(Latitude variation)

KAPRALOV, V.P.

Observations of lunar occultations of stars at the Engel'gardt
Observatory in January-March 1960. Astron.tsir. no.211:33 My '60.
(MIRA 13:10)

1. Astronomicheskaya observatoriya im. Engel'gardta, Kazan'.
(Occultations)

KAPRALOV, V.P.

Observations of lunar occultations of stars at the Engel'gardt
Astronomical Observatory in 1960. Astron.tsir. no.216:33 D '60.
(MIRA 14:4)

1. Astronomicheskaya observatoriya imeni Engel'gardta.
(Occultations)

KAPRALOV, V.P.

Observations of lunar occultations of stars in Kazan. Astron.^{tsir}.
no.218:25 F '61. (MIRA 14:7)

1. Astronomicheskaya observatoriya im. Engel'gardta, Kazan'.
(Occultations)

- ~~HERSENEV~~, V.S.; Prinimali uchastiye: ZINEVICH, V.D.; MOROZOV, V.I.;
MUKHACHEV, V.S.; ~~KAPRALOV, Ya. P.~~; KOLCHANOV, V.D.; BOGDANOV, A.V.;
OBUKHOVICH, I.I.; OSTROZHINSKIY, A.I.; KHROMOV, M.I.; SIVOUCHUB, A.A.

Breaking a solid body with a high-pressure water jet. Zap. LGI
41 no.1:44-51 '59. (MIRA 16:5)

(Jets—Fluid dynamics)

KAPRALOV, Ye.P.

Study of the basic parameters of a vortex pump for hydraulic
conveying. Zap. LGI 47 no.1:75-82 '62. (MIRA 16:5)
(Centrifugal pumps)

KAPRALOV, Ye.P.

Results of inspecting the performance of drainage installations
in Estonian shale mines. Zap.Len.gor.inst. 35 no.1:70-75 '57.
(MIRA 10:10)

(Estonia--Mine drainage)

AUTHOR: Kapralov, Ye. P., Engineer SOV/118-58-1-15/16

TITLE: On the book "Hydraulic Mechanization in the Quarries of the Building Material Industry" by I. Ya. Anikeyev (O knige I. Ya. Anikeyeva "Gidromekhanizatsiya na kar'yerakh promyshlennosti stroymaterialov")

PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1958, Nr 1, p 46, (USSR)

ABSTRACT: The above-mentioned book is reviewed.

1. Industrial equipment 2. Quarries--Equipment 3. Literature

Card 1/1

Korrad

ALONGSIDE *Deputy* *105* *391*
PORTION OF *BRADY* *BRADY* *WIFE*

KAPRALOVA, G.A.; TROFIMOVA, Ye.M.; RUSIN, L.Yu.; CHAYKIN, A.M.; SHILOV,
A.Ye.

Experimental evidence for branching in chain reactions involving
molecular fluorine. *Kin. i kat.* 4 no.4:653-654 JI-Ag '63.
(MIRA 16:11)

1. Institut khimicheskoy fiziki AN SSSR.

S/076/63/037/001/008/029
B192/B101AUTHORS: Kapralova, G. A., Semenov, N. N. (Moscow)TITLE: Calorimetric investigation of the initiation mechanism of
1,2-dichloro ethane decomposition. .I

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 1, 1963, 73-77

TEXT: The effect of the surface state of reaction vessels on the thermal decomposition of 1,2-dichloro ethane at 400-500°C was studied. The calorimetric method by A. A. Koval'skiy (Doctoral Dissertation, In-t khim. fiz. AN SSSR (Institute of Chemical Physics AS USSR), 1947) was used to distinguish the heterogeneous from the heterohomogeneous reaction. The quantity $\rho = \Delta T_{\text{exp}} / \Delta T_{\text{homo}}$ was determined, where ΔT_{exp} is the measured temperature difference between center and wall of the container and ΔT_{homo} the temperature difference calculated for a fully homogeneous reaction. The reaction was carried out in containers of molybdenum glass, quartz, or pyrex glass. Increased soiling of the container wall considerably decreased the reaction rate, but the ρ -values did not change very much and were

Card 1/2

Calorimetric investigation of the...

S/076/63/037/001/008/029
B192/B101

2-5 times greater than those calculated for a purely heterogeneous reaction. The reaction in a clean container cannot be interpreted as the sum of a heterogeneous and a homogeneous reaction. Even after admixture of 0.06% propylene, the rate of decomposition decreased considerably without any great changes of φ . The change in the rate of decomposition in clean molybdenum containers with a change of the surface/volume ratio confirmed that there was no heterogeneous reaction. Conclusion: In clean vessels, the decomposition of 1,2-dichloro ethane proceeds as a chain reaction which is initiated on the surface but continues in depth. The fact that the φ -values remained smaller than unity, as should be the case in a homogeneous reaction, is explained by partial termination in depth and a reaction close to the wall. There are 1 figure and 4 tables. ✓

ASSOCIATION: Akademiya nauk SSSR Institut khimicheskoy fiziki (Academy of Sciences USSR, Institute of Chemical Physics)

SUBMITTED: August 3, 1961

Card 2/2

KAPRALOVA, G.A.; SEMENOV, N.N.

Inhibition mechanism in the reaction of decomposition of 1,2-dichloroethane. Part 2. Zhur.fiz.khim. 37 no.2:301-306 F '63.
(MIRA 16:5)

1. Akademiya nauk SSSR, Institut khimicheskoy fiziki.
(Ethane) (Inhibition (Chemistry))

KAPRALOVA, G. A.; SEMENOV, N. N.

Decomposition of tert-butyl chloride studied by means of
calorimetry. Part 3. Zhur. fiz. khim. 37 no. 3:499-502
Mr '63. (MIRA 17:5)

1. Institut khimicheskoy fiziki AN SSSR.

L 12587-63 EPR/EWP(j)/EPF(c)/EWP(q)/EWT(m)/BDS AFFTC/ASD PB-4/PC-4/
Pr-4 RM/WW/JD
ACCESSION NR: AP3003225 S/0020/63/150/006/1282/1284

AUTHOR: Kapralova, G. A.; Rusin, L. Yu.; Chaykin, A. M.; Shilov, A. Ye. 76
75

TITLE: Elemental reactions of molecular fluorine ⁷¹

SOURCE: AN SSSR. Doklady, v. 150, no. 6, 1963, 1282-1284

TOPIC TAGS: molecular fluorine, fluorine, hydrogen, carbon, frozen olefin, ethylene, divinyl, hydrogen iodide, luminescence, flame diffusion, methane

ABSTRACT: The great reactive capacity of molecular fluorine, as compared to other halogens, is explained by its affinity for H, C, and metals, and the high energy of its bonding with C, H, and Me (over 100 kcal/mol) accounts for certain features of the reactions illustrated here, some of which involve the release of enormous amounts of energy and may lead to chain reactions. The authors give the results of their studies on the kinetics and mechanism of the 2 types of elemental reaction shown in equations (1) and (2) of the Enclosure. At liquid N sub 2 temperatures, type (2) reactions occur with the formation of free radicals by gaseous F sub 2 on interaction with frozen olefins. Measured with a thermocouple vacuum gage to determine the fall of F sub 2 pressure, the reaction was too fast for measurement when ethylene and divinyl were used. With chloro-substituted ethylene, the

Card 1/13

L 12587-63

ACCESSION NR: AP3003225

reaction rate decreased. In detailed kinetic studies on trichloroethylene bound to F sub 2, measurements of the surface size of the frozen olefin by the BET method showed that the quantity of F sub 2 molecules taken up by the olefin at -196C was almost identical to the number of olefin molecules at the surface; deeper layers reacted only when the temperature was increased. The energy of the reaction of C sub 2 HCl sub 3 was ca. 0.5 kcal/mol over the temperature range -196C to -163C; thus for olefins with a smaller number of Cl atoms in the molecule, especially ethylene, the energy of activation must be practically nil. Flame-diffusion measurements of the reaction rate of molecular F sub 2 with gaseous ethylene by Kistjakovskiy's method were made to study the reactions shown in equations (3), (4), (5), (6) of the Enclosure. Although the energy of activation was quite low, it was decidedly higher than in the surface reaction of F sub 2 with olefins. The reaction of F sub 2 with hydrogen iodide was accompanied by distinct luminescence, the spectrum corresponding to the known spectrum of excited FI* molecules. With an excess of HI, the stable reaction products were molecular iodine and hydrogen fluoride. Flame diffusion determination of the velocity constants in experiments in which F sub 2 was added via a nozzle to a stream of HI was compared with initial flame-diffusion heating under different flow conditions. The good correspondence indicates that rate of luminescence and heat emission are functions of the same process. Flame-diffusion studies showed little reaction

Card 2/4

L 12587-63

ACCESSION NR: AP3003225

between F sub 2 and CH sub 4 or HCl under comparable conditions and these reactions were practically thermo-neutral, in contrast to the markedly exothermic reactions of F sub 2 with olefins and HI. These findings further confirm the close relationship between activation energy and thermal effect, which is evidently analogous to Polyani's law for radical reactions. The paper was presented by Academician N. N. Semenov on 21 Feb 1963. Orig. art. has: 2 figures and 6 equations.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

SUBMITTED: 00

DATE ACQ: 24Jul63

ENCL: 01

SUB CODE: CH

NO REF SOV: 003

OTHER: 007

Card 3/16

I 11112-66 EPA/ENT(m)/I/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/WW/JW/JWD/WE
 ACC NR: AP6002164 SOURCE CODE: UR/0195/65/006/006/0977/0981

AUTHOR: ⁴⁴ Kapralova, G. A.; ⁴⁴ Trofimova, Ye. M.; ⁴⁴ Shilov, A. Ye. ⁶²

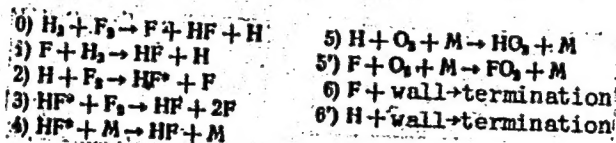
ORG: ⁴⁴ Institute of Chemical Physics, AN SSSR (Institut khimicheskoy fiziki AN SSSR) ⁵⁵

TITLE: ^{11.44.55} The upper ignition limit in the reaction of fluorine with hydrogen ¹¹

SOURCE: Kinetika i kataliz, v. 6, no. 6, 1965, 977-981 ²⁷

TOPIC TAGS: flame, combustion, propulsion, ignition limit

ABSTRACT: The reaction of hydrogen with fluorine is often explosive in character. It had been assumed that no branching took place in this reaction, but rather a thermal explosion. A mechanism can be proposed, however, which is different in principle from a thermal explosion:



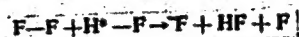
Card 1/2

UDC: 541.126.4:546.16+546.11

L 11112-66


ACC NR: AP6002164

The experimental results obtained in this work clearly indicate the existence of an upper pressure limit. Above the limit the reaction is slow, below the limit an explosion occurs. Branching of the chain reaction taking place above the limit is attributed to excited HF molecules. The reaction of an excited HF molecule with a fluorine molecule probably involves a chemical reaction of the type:



rather than simple energy transfer by collision, which is extremely improbable. The authors intend to investigate the reaction mechanism in more detail and to refine the value of k_3/k_4 . Orig. art. has: 6 figures and 1 table. [VS]

SUB CODE: 21/ SUBM DATE: 14Jul64/ ORIG REF: 003/ OTH REF: 004
ATD PRESS: 4/76


Card 2/2

KAPRALOVA, L.A.

135-5-4/14

SUBJECT: USSR/Welding.

AUTHORS: Abramovich, V.R., Engineer, and Kapralova, L.A., Engineer.

TITLE: Effect of Oxygen Content in Copper on the Properties of Welded and Brazed Joints. (Issledovaniye vliyaniya soderzhaniya kisloroda v medi na svoystva svarnykh i payanykh soedineniy.)

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, # 5, pp 12-16 (USSR).

ABSTRACT: Subject investigation had the purpose of finding data which could be used as a basis for recommending one or the other welding or brazing method for copper containing various quantities of oxygen, since no such data are as yet available.

For the experiments was used deoxidized copper with an oxygen content of 0.00066%, 4 mm thick, further copper with 0.0022% oxygen, 6 mm thick; copper "M3c" with about 0.01 % oxygen, 5mm thick; and copper "M3" with 0.03%, 0.06%, and 0.09% oxygen, 5 and 6 mm thick. The content of other elements was equal in all specimens.

Card 1/2 The composition of the electrodes coating "Komsomolets" and "3T", as well as the composition of the welding rod "Ep0φ9.03" and its coating, and of the solder "JOK 59-1-0.3" are specified